What is claimed is:

1. A network comprising:

- a first carrier network employed by a layer-1 VPN service provider;
 layer-1 VPN information created within said first carrier network;
 a second carrier network employed by a different service provider;
 - layer-2 VPN information created within said second carrier network; and a BGP session for transmitting said layer-2 VPN information from said second
 - carrier network to said first carrier network.
- 2. A network as claimed in claim 1 wherein an auto-discovery mechanism for said second carrier network is outsourced to said first carrier network.
- 3. A network as claimed in claim 2 wherein both layer-1 and layer-2 VPN autodiscovery are carried out within said first carrier network.
- 4. A network as claimed in claim 3 wherein said first carrier network includes at least two provider edge devices, and a backbone separates said at least two provider edge devices.
- A network as claimed in claim 4 wherein said at least two provider edge devices are Layer-1 and/or GVPN-based, and said backbone includes a portion of the Internet.
- 6. A network as claimed in claim 4 wherein said second carrier network includes a provider edge device that is a selected one of the following: a layer-2 VPN-based provider edge device, a layer-3 VPN-based provider edge device, and a layer-2 and layer-3 VPN-based provider edge device.
- 7. A method for distributing layer-2 VPN information comprising the steps of: using BGP sessions and a discovery mechanism of a layer-1 provider edge device to distribute received layer-2 VPN information to a remote layer-1

provider edge device; and

- passing said layer-2 VPN information from said remote layer-1 provider edge device to an attached layer-2 provider edge device, wherein
- a discovery mechanism of said layer-1 provider edge device simplifies operations for a layer-2 service provider.
- 8. A method as claimed in claim 7 further comprising the step of advertising layer-2 VPN discovery to said layer-1 provider edge device before the step of using said BGP sessions and said discovery mechanism.
- 9. A method as claimed in claim 8 wherein at least one inter-carrier BGP session is a mechanism for said advertising.
- 10. A method as claimed in claim 9 wherein said inter-carrier BGP session is set up between said layer-1 provider edge device and another provider edge device that is a selected one of the following: a layer-2 VPN-based provider edge device, and a layer-2 and layer-3 VPN-based provider edge device.
- 11. A method as claimed in claim 10 wherein said another provider edge device is a part of a provider network, and said layer-1 provider edge device is a part of a sub-provider network.
- 12. A method as claimed in claim 11 wherein said layer-1 provider edge device and said remote layer-1 provider edge device are separated by a backbone.
- 13. A method as claimed in claim 12 wherein said backbone includes a portion of the Internet.
- 14. A method as claimed in claim 13 wherein said another provider edge device interfaces with a VPN.

- 15. A network comprising:
 - a backbone;
 - at least two provider edge devices connected to and working with said backbone; and
 - layer-1 and layer-2 VPN information processed by one of said at least two provider edge devices,
 - wherein said one of the at least two provider edge devices has a discovery mechanism for distributing said layer-2 VPN information.
- 16. A network as claimed in claim 15 wherein said at least two provider edge devices are GVPN-based.
- 17. A network as claimed in claim 16 wherein said at least two provider edge devices are a part of a network of a first service provider.
- 18. A network as claimed in claim 17 further comprising a second service provider having its own network, said second service provider being a customer of said first service provider.
- 19. A network as claimed in claim 18 wherein both layer-1 and layer-2 VPN autodiscovery are carried out within said network of the first service provider.
- 20. A network as claimed in claim 15 wherein said backbone includes a portion of the Internet.